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Three newly recorded species of *Parasympodiella* and *Chalara* from China

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Abstract — Three new Chinese records of fungi were discovered from subtropical forests of Guangxi Province, China. *Parasympodiella laxa*, *P. eucalypti,* and *Chalara unicolor* are described and illustrated from specimens collected on dead branches and compared with closely related species.

Key words — anamorphic fungi, taxonomy

Introduction

Parasympodiella was established by Ponnappa (1975) with *P. laxa* as the type species. The genus is characterized by distinct, single conidiophores with terminal and intercalary, integrated, indeterminate, sympodially extending conidiogenous cells that produce catenate, cylindrical, thallic conidia by disarticulations of the fertile hyaline branches. These characters separate *Parasympodiella* from similar genera such as *Sympodiella* W.B. Kendr. (Kendrick 1958), *Bahusakala* Subram. (Subramanian 1958), *Polyscytalum* Riess (Riess 1853), and *Neoscytalidium* Crous & Slippers (Crous et al. 2006). *Parasympodiella* currently includes 10 accepted species.

Rabenhorst (1844) introduced *Chalara* for the single species *Torula fusidioides* Corda. The genus has been defined as having distinct, solitary or loosely aggregated conidiophores with monophialidic, integrated, terminal, determinate apical conidiogenous cells that produce catenate, endogenous, cylindrical phialospores. *Chalara* is similar to *Chaetochalara* B. Sutton & Piroz. (Sutton & Pirozynski 1965), *Thielaviopsis* Went (Went 1893), and *Fusichalara* S. Hughes & Nag Raj (Hughes & Nag Raj 1973) in having phialidic conidiogenous cells with a deep cylindrical collarette. Of the more than 130 species described in *Chalara*, *C. ampullula* (Sacc.) Sacc., *C. aotearoa* Nag Raj & S. Hughes,

C. cylindrosperma (Corda) S. Hughes, *C. sinensis* W.P. Wu, and *C. ungeri* Sacc. have previously been reported from China (Zhuang 2001, 2005).

During a continuing survey of subtropical microfungi from the forests of Guangxi Province, China, three new Chinese records of *Parasympodiella* and *Chalara* were collected on decaying branches. They are described and illustrated below.

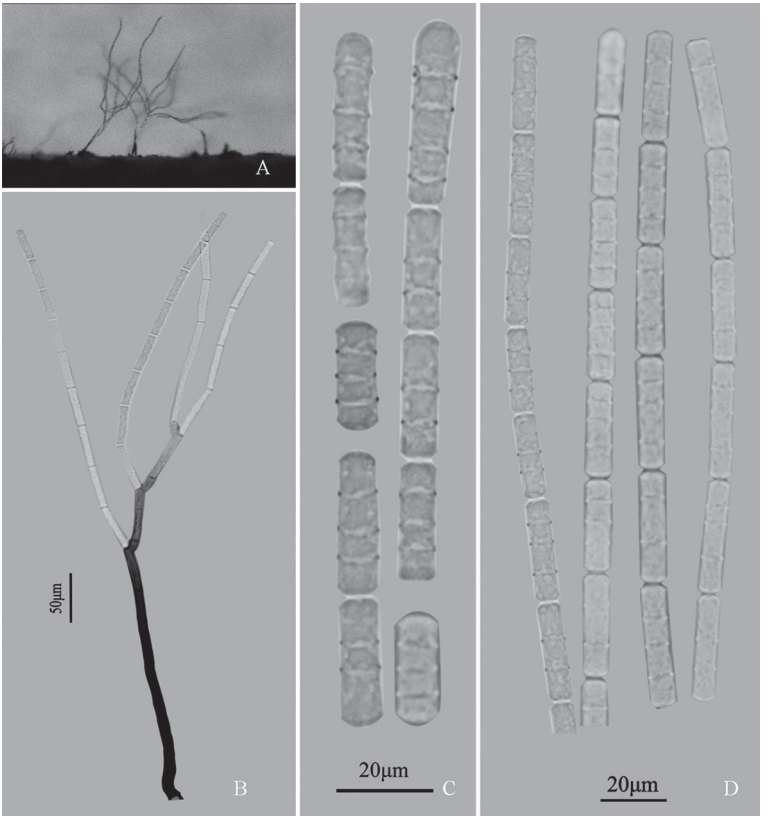

Fig. 1. *Parasympodiella laxa.*
A. Colonies on natural substratum; B. Conidiophores and conidiogenous cells; C, D. Conidia.

Parasympodiella laxa (Subram. & Vittal) Ponnappa, Trans. Br. Mycol. Soc. 64: 344, 1975. Fig. 1

Colonies on natural substrate effuse, brown to blackish brown, hairy. Mycelium superficial and immersed, consisting of branched, septate, hyaline to pale brown hyphae. Conidiophores distinct, solitary, unbranched, erect, cylindrical, ≤780 μm long, 1–9-septate; sterile part dark brown, with

a thickened wall, 6–9 µm wide, swollen base ≤18 µm wide; fertile part grey-brown, later becoming paler toward the apex. Conidiogenous cells terminal and intercalary, integrated, indeterminate, with sympodial extensions and one conidiogenous locus per cell, smooth, pale grey-brown, becoming hyaline toward the apex, 42–78 × 6.3–9.4 µm between conidiogenous loci. Conidia thallic-arthric, forming in loose chains, hyaline, dry, smooth, thin-walled, cylindrical, 23–40 × 7–10 µm, (0–)3(–4)-septate, apex and base of intercalary conidia truncate, apical conidia with obtuse or rounded apex.

Specimen examined: **CHINA, Guangxi Province**: Dayaoshan Nature Reserve, on decaying twigs of an unidentified broadleaf tree, 7 Nov. 2012, X.X. Li (HSAUP H9021, HMAS 243426).

Comments –This is the first report of this species in China. The conidia of the specimen examined are somewhat shorter and wider than the material originally described by Ponnappa (18–50 × 6–8 µm; Ponnappa 1975), but we believe they are the same species. *Parasympodiella laxa* is similar to *P. elongata* Crous et al. in conidial morphology, but *P. elongata* differs by its much longer conidiophores (≤1300 µm; Crous et al. 1995).

Parasympodiella eucalypti Cheew. & Crous, Persoonia 23: 70, 2009. Fig. 2

Colonies on natural substrate effuse, brown to blackish brown, hairy. Mycelium superficial and immersed, consisting of branched, septate, hyaline to pale brown hyphae. Conidiophores distinct, solitary, unbranched, cylindrical, ≤670 µm, ≤13-septate; sterile part with a thickened wall, medium to dark grey-brown, 6–8 µm wide; fertile part thin-walled, pale grey-brown at basal region, paler toward the apex. Conidiogenous cells terminal and intercalary, integrated, indeterminate, extending sympodially, with one conidiogenous locus per cell, smooth, pale grey-brown, becoming hyaline toward the apex. Conidia thallic-arthric, hyaline to very pale brown, dry, smooth, thin-walled, cylindrical, 28–54 × 6–9 µm, (0–)1(–2)-septate, somewhat swollen in the apical cells, apex and base of intercalary conidia truncate, with a punctiform septal plug at each end, apical conidia with obtuse or round apex, occurring in unbranched chains.

Specimen examined: **CHINA, Guangxi Province**: Dayaoshan Nature Reserve, on decaying twigs of an unidentified broadleaf tree, 10 Nov. 2012, X.X. Li (HSAUP H9038, HMAS 243427).

Comments – *Parasympodiella eucalypti* is reported for the first time from China. The conidia of the Chinese specimen are narrower than those of the type material (width 8–11 µm; Cheewangkoon et al. 2009), but other features of our material closely match those of the original description. *Parasympodiella eucalypti* resembles *P. elongata* in conidial shape, but *P. elongata* has slightly shorter and wider conidia (20–40 × 6–12 µm; Crous et al. 1995).

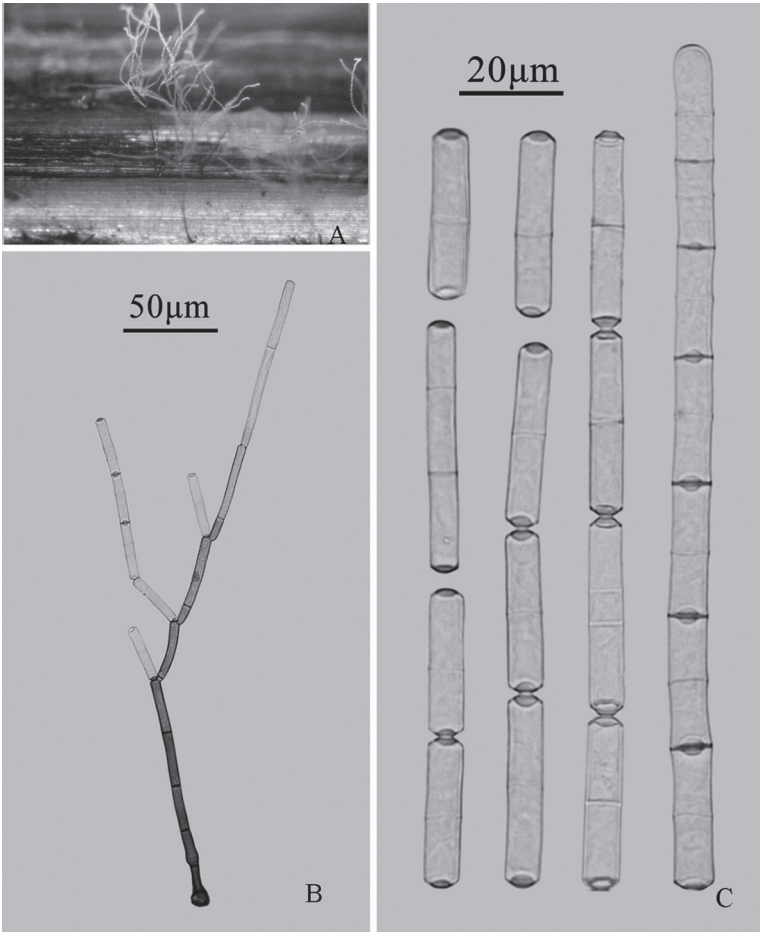

Fig. 2. *Parasympodiella eucalypti*.
A. Colonies on natural substratum; B. Conidiophores and conidiogenous cells; C. Conidia.

Chalara unicolor S. Hughes & Nag Raj, New Zealand J. Bot. 12: 121, 1974. Fig. 3

Colonies on natural substrate superficial, effuse, brown, hairy, with a thin white bloom of conidial chains. Mycelium mostly immersed in the substrate. Conidiophores solitary or loosely aggregated, erect, straight, subcylindrical, uniformly brown, smooth, walls thickened somewhat below and thinner above, 85–130 μm long, composed of a short basal stalk cell, 8.6–9.5 μm wide with an apical phialide. Conidiogenous cells phialides with a slightly inflated venter about 11–14 μm wide merging into a long, cylindrical collarette 8–9 μm wide.

Conidia cylindrical, barely rounded at the apex and flattened at the marginally frilled base, hyaline, 3-septate, smooth, 24–34 × 7–8 µm, sometimes observed in readily seceding chains.

Specimen examined: **CHINA, Guangxi Province**: Guposhan National Forest Park, on decaying twigs of an unidentified broadleaf tree, 9 Nov. 2012, X.X. Li (HSAUP H9026, HMAS 243428).

Comments – This species has not been previously reported in China. The Chinese collection has shorter conidia than those of the type material ((20–) 34–40(–45) µm; Nag Raj & Hughes 1974), but otherwise fits well with the original description. *Chalara unicolor* is similar to *C. magnispora* Matsush. in conidial shape, but *C. magnispora* conidia are larger and sometimes 4-septate (25–45(–56) × 7.5–10.5 µm; Matsushima 1993).

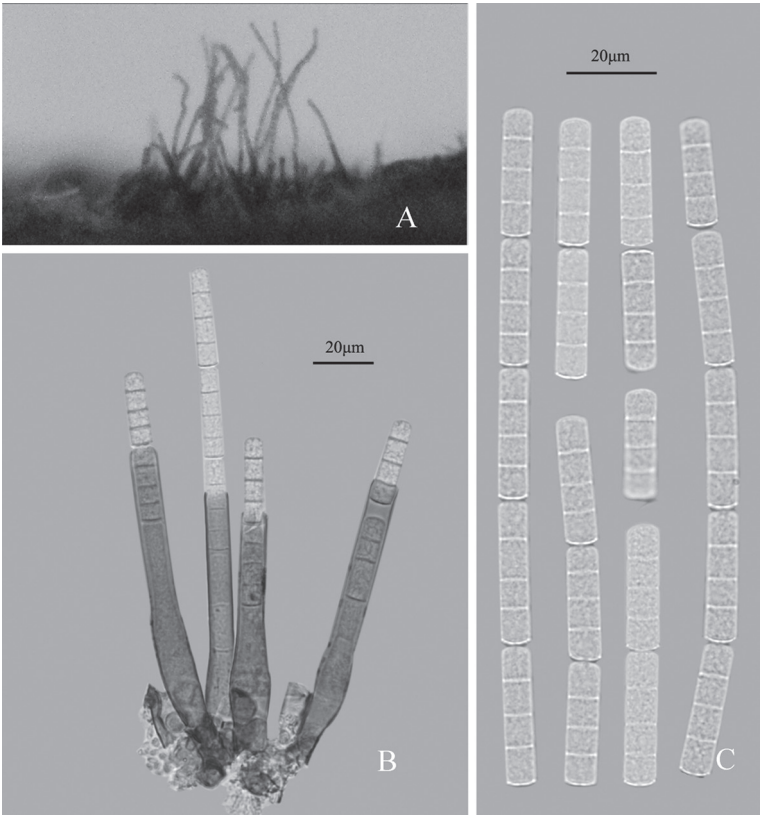

Fig. 3. *Chalara unicolor*.
A. Colonies on natural substratum; B. Conidiophores and conidiogenous cells; C. Conidia.

Acknowledgments

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